

REMARKS

I. Status of the Claims

By this Amendment, claims 1, 8, 11, 23, and 27 have been amended, and claims 29-31 have been added. Thus, claims 1-31 are pending on the merits in this application.

II. Amendments to the Claims

The amendments to claim 1, 11, and 23, and new claims 29-31 are fully supported by at least page 6, line 34 to page 7, line 2, of the originally-filed specification. The amendment to claim 27 is fully supported by at least page 4, lines 21-25, of the originally-filed specification. In light of at least the noted support in the originally-filed specification, Applicant respectfully submits that the amendments do not add any new matter, and that the skilled artisan would readily understand Applicant to have been in possession of the claimed subject matter at the time this application was filed. Therefore, Applicant requests that the Office enter the claim amendments without objection.

III. Claim Rejections

1. 35 U.S.C. § 112

The Office has rejected claim 27 under 35 U.S.C. § 112, second paragraph, as being indefinite for lacking sufficient antecedent basis for the recitation “flame retardant polymer composition according to claim 11.” Office Action at 2.

Applicant has amended claim 27 herein to recite, “A flame retardant article formed from a polymer composition according to claim 11.” As such, the Office’s

rejection of claim 27 under 35 U.S.C. § 112, second paragraph, is now moot, and Applicant respectfully requests that the rejection be withdrawn.

2. 35 U.S.C. § 102(b)

The Office has rejected claims 1-18 and 25-28 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,798,766 to Rice ("Rice '766"). Office Action at 2. The Office asserts that Rice '766 discloses a layered silicate that is surface-modified with an organic material by first reacting the silicate with a reactant system comprising gaseous NH₃, followed by, second, contacting the aminated silicate with an organic compound condensable with the amine group. *Id.* The Office further asserts that Rice '766 discloses that the surface modified silicates may be useful as fillers in a filled polymer system. *Id.* at 3. Finally, the Office asserts that, in Example 1, the clay has a particle diameter of 2 micrometers or less and is used as a filler in an amount of 40% of the polymeric composition (which the Office asserts meets the limitations in claims 8 and 14-18). *Id.* Applicant respectfully traverses.

In order to show anticipation of a claim, the Office must provide a single reference that discloses, either expressly or inherently, each and every element of the pending claim. *See* M.P.E.P. § 2131. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." *See id.* (citation omitted).

As amended herein, each of claims 1-18 and 25-28 recite, *inter alia*, a particulate clay material which is surface-modified with at least one organic compound comprising an organic portion and a basic portion, "wherein the particulate clay material has a particle shape factor greater than about 10." Rice '766 does not teach or suggest such a surface-modified particulate clay material having a shape factor of at least about 10.

As such, it cannot anticipate any of claims 1-18 and 25-28, and Applicant therefore respectfully requests that the rejection based on Rice '766 under 35 U.S.C. § 102(b) be withdrawn.

3. 35 U.S.C. § 103(a)

The Office has rejected claims 19 and 22 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rice '766 in view of U.S. Patent No. 4,911,982 to Rice ("Rice '982") and claims 19-24 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rice '766 in view of U.S. Reissue Patent No. RE 31,922 to Ancker et al. ("Ancker"). The Office asserts that Rice '982 discloses conventional additives that may be employed with the surface treated clays of the invention, and Ancker discloses various adjuvants and ATH as conventional flame retardant for filled polymer compositions. Office Action at 4.

Questions regarding obviousness under 35 U.S.C. § 103(a) are resolved on the basis of underlying factual determinations, including (1) the scope and contents of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 U.S.P.Q. 459, 467 (1966); see also KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1734, 82 U.S.P.Q. 2d 1385, 1391 (2007) ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.").

Whatever Rice '982 and Ancker may teach about additives, adjuvants, and ATH, like Rice '766, they fail to teach or suggest a particulate clay material which is surface-modified with at least one organic compound comprising an organic portion and a basic

portion, “wherein the particulate clay material has a particle shape factor greater than about 10.” Moreover, nothing in the references themselves, or in the knowledge of one of ordinary skill in the art would have rendered it obvious to have prepared a surface-modified particulate clay material according to the pending claims (modified with at least one organic compound comprising an organic portion and a basic portion) wherein the particulate clay material has a particle shape factor greater than about 10. As such, the Office has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) based on Rice ‘766, Rice ‘982, and Anker, whether taken alone or in any combination. Therefore, Applicant respectfully requests that the rejections of claims 19-24 under 35 U.S.C. § 103(a) be withdrawn and the claims passed to allowance.

VI. Conclusion

For at least the above-outlined reasons, Applicant respectfully requests reconsideration of this application, withdrawal of the claim rejections, and allowance of all of pending claims 1-31.

If the Office has any questions regarding this Amendment or the application in general, Applicant cordially invites the Office to contact Applicant’s undersigned representative at the telephone number listed below.

Applicant respectfully submits that the Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether any of those assertions are addressed specifically herein, Applicant respectfully declines to automatically subscribe to them.

Please grant any extensions of time required to enter this Request and charge any additional required fees to our Deposit Account 06-0916.

Respectfully submitted,

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Dated: November 16, 2009

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